Amendments In the Claims

Please add Claims 36 and 37. Please amend Claims 1, 4, 8, 12, 13, 16, 23, 24, 27, 30, and 33 as follows:

1. **(Currently Amended)** A method for transporting information over a network comprising:

decomposing an input datastream into a plurality of sub-streams**, wherein**

said decomposing comprises placing a selected portion of the input

datastream into a selected one of a plurality of channels, and

a sub-stream of said sub-streams comprises the selected portion of the

input datastream; and

communicating said sub-streams between a first network element and a second

network element of said network by transporting each one of said sub-streams

over **a corresponding** one of a plurality of channels, wherein

a bandwidth of said input datastream is greater than a bandwidth **capacity** of

any one of said channels.

2. (Original) The method of claim 1, wherein
each of said channels is an optical channel.

3. (Original) The method of claim 2, wherein
each of said optical channels corresponds to a wavelength.

4. **(Currently Amended)** The method of claim 1, wherein
said each one of said sub-streams has a bandwidth that is equal to or less than a
bandwidth **capacity** of a corresponding one of said channels.

5. (Previously Presented) The method of claim 1, further comprising:
assembling said sub-streams into a reconstructed output datastream.

6. (Previously Presented) The method of claim 5, wherein said assembling
comprises:

placing a portion of each of said substreams in a queue, wherein said reconstructed

output datastream is output by said queue.

7.   (Previously Presented) The method of claim 5, further comprising:

performing protocol processing on said input datastream; and

performing protocol processing on said reconstructed output datastream.

8.   **(Currently Amended)** The method of claim 1, further comprising:

performing compression on a one of said sub-streams, wherein

said one of said sub-streams has a bandwidth greater than **a bandwidth**

capacity of the corresponding **selected** one of said channels.

9.   (Original) The method of claim 1, wherein said network is an existing

network.

10.   (Previously Presented) The method of claim 1, wherein

said network comprises an underlying network infrastructure, and

the method is performed without alteration of said underlying network infrastructure.

11.   (Original) The method of claim 10, wherein said network comprises a fiber-

optic system.

12.   **(Currently Amended)** The method of claim 1, wherein said decomposition

comprises:

placing **the** [[a]] portion of said input datastream in one of a plurality of queues,

wherein

the queue ~~each of said queues~~ corresponds to **the selected** [[a]] one of said

channels.

13.   **(Currently Amended)** A method for receiving information transported over

a network comprising:

receiving a plurality of sub-streams, wherein

said sub-streams are created by decomposing an input datastream into said

sub-streams, **wherein**

said decomposing comprises placing a selected portion of the input

datastream into a selected one of a plurality of channels,

and

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a sub-stream of said substreams comprises the selected portion of the input datastream,

each of said sub-streams is transported over said network on **the** [[a]] **selected** ~~corresponding~~ one of **the** [[a]] plurality of channels, and

a bandwidth of said input datastream is greater than a bandwidth **capacity** of any one of said channels; and

assembling said sub-streams into a reconstructed output datastream.

14. (Original) The method of claim 13, wherein each of said channels is an optical channel.

15. (Original) The method of claim 14, wherein each of said optical channels corresponds to a wavelength.

16. **(Currently Amended)** The method of claim 13, wherein said each one of said sub-streams has a bandwidth that is equal to or less than a bandwidth **capacity** of said corresponding one of said channels.

17. (Original) The method of claim 13, wherein said assembling comprises: placing a portion of each of said substreams in a queue, wherein said reconstructed datastream is output by said queue.

18. (Previously Presented) The method of claim 13, further comprising: decomposing said input datastream into said sub-streams; and transporting said each of said sub-streams over said network on said corresponding one of a plurality of channels.

19. (Previously Presented) The method of claim 13, further comprising: performing protocol processing on said input datastream; and performing protocol processing on said reconstructed output datastream.

20. (Original) The method of claim 13, wherein said network is an existing network.

21. (Previously Presented) The method of claim 13, wherein

said network comprises an underlying network infrastructure, and

the method is performed without alteration of said underlying network infrastructure.

22. (Original) The method of claim 21, wherein said network comprises a fiber-optic system.

23. **(Currently Amended)** The method of claim 13, wherein said decomposition comprises:

placing **the selected** [[a]] portion of said input datastream in one of a plurality of

queues, wherein

each of said queues corresponds to a one of said **plurality of** channels.

24. **(Currently Amended)** An apparatus for transporting information over a network comprising:

a first sub-stream management device, comprising

an input configured to receive an input datastream, and

a plurality of outputs, wherein

each of said outputs is configured to output one of a plurality of sub-

streams, wherein

the input datastream is decomposed to form the plurality of

sub-streams, **wherein**

said decomposing comprises placing a selected

portion of the input datastream into a

selected one of the plurality of outputs, and

a sub-stream of said sub-streams comprises the

selected portion of the input datastream,

each of said sub-streams is transported over said network on a

corresponding one of a plurality of channels, and

a bandwidth of said input datastream is greater than a bandwidth

capacity of any one of said channels.

25.   (Original) The apparatus of claim 24, wherein
each of said channels is an optical channel.

26.   (Previously Presented) The apparatus of claim 25, wherein
each of said optical channels corresponds to a wavelength.

27.   **(Currently Amended)** The apparatus of claim 24, wherein
said each one of said sub-streams has a bandwidth that is equal to or less than a
     bandwidth **capacity** of said corresponding one of said channels.

28.   (Previously Presented) The apparatus of claim 24, further comprising
a second sub-stream management device, comprising
     an output configured to output a reconstructed output datastream, and
     a plurality of inputs, wherein
          each of said inputs is configured to receive one of said sub-streams;
               and
an underlying network infrastructure, communicatively coupled to said first and said
     second sub-stream management devices, and comprising said channels.

29.   (Original) The apparatus of claim 28, further comprising
a first protocol processor, coupled to said input; and
a second protocol processor, coupled to said output.

30.   **(Currently Amended)** An apparatus for transporting information over a
network comprising:
a first sub-stream management device, comprising
     an output configured to output a reconstructed output datastream, and
     a plurality of inputs, wherein
          each of said inputs is configured to receive one of a plurality of sub-
               streams,
          said sub-streams are created by decomposing an input datastream into
               said sub-streams, **wherein**

said decomposing comprises placing a selected portion of the input datastream into a selected one of a plurality of channels, and a sub-stream of said sub-streams comprises the selected portion of the input datastream,

each of said sub-streams is transported over said network on **the** [[a]] **selected** ~~corresponding~~ one of **the** [[a]] plurality of channels, and

a bandwidth of said input datastream is greater than a bandwidth **capacity** of any one of said channels.

31.   (Original) The apparatus of claim 30, wherein each of said channels is an optical channel.

32.   (Previously Presented) The apparatus of claim 31, wherein each of said optical channels corresponds to a wavelength.

33.   **(Currently Amended)** The apparatus of claim 30, wherein said each one of said sub-streams has a bandwidth that is equal to or less than a bandwidth **capacity** of said corresponding one of said channels.

34.   (Previously Presented) The apparatus of claim 30, further comprising a second sub-stream management device, comprising

an input configured to receive said input datastream, and

a plurality of outputs, wherein

each of said outputs is configured to output one of said sub-streams; and

an underlying network infrastructure, communicatively coupled to said first and said second sub-stream management devices, and comprising said channels.

35.   (Original) The apparatus of claim 34, further comprising a first protocol processor, coupled to said input; and a second protocol processor, coupled to said output.

36.   (New) The method of Claim 1 wherein selecting the selected one of a plurality of channels comprises:

using a simple round-robin technique to choose an available one of the plurality of channels.

37.   (New) The apparatus of Claim 24 wherein selecting the selected one of the plurality of outputs comprises:

using a simple round-robin technique to choose an available one of the plurality of outputs.